<u>ABSTRACT</u>

A distributed computing network is disclosed, the membership of which is determined in accordance with policy data stored at existing member nodes. A node wishing to join the distributed computing network sends profile data indicating the resources it has available for shared computation to a member node. The member node compares the resources with the requirement indicated in the priority data. If the comparison indicates that the applicant node should join, then data indicating the topology of the distributed computing network is updated at the member node and created at the applicant node. This allows for the creation of a distributed computing network whose topology is well-suited to a given task, provided the policy properly reflects the requirements of that task.